Transmitted Via Facsimile to (571) 273-8300   Docket No. 135270 (553-1044)
                                                                                        PATENT

IN THE SPECIFICATION

Please replace paragraph 02 with the following amended paragraph:

Today a wide variety of medical diagnostic imaging systems are offered to assist physicians in detecting and diagnosing pathologies. Examples of modalities that offer such diagnostic systems include ultrasound, CT, MR, PET, SPECT and x-ray, [[,]] as well as mammography and the like. These diagnostic imaging systems are quite specialized and may be quite expensive. Due to the nature of each system, technicians, physicians and operators typically expend a significant amount of time in learning how to operate the equipment and interpret images obtained with the equipment. Specialists may operate the equipment or interpret the resulting images.[[,]] Hence, not every hospital is able to justify the expense associated with the equipment and the staff/operators that use the equipment. Also, even when a hospital offers the imaging equipment, the hospital may be unable to justify multiple staff or physicians who are specially trained to utilize the equipment. Hence, only a few doctors, technicians and operators may be fully trained on the equipment at any single hospital. This limitation in resources often creates a bottleneck for the use of the equipment and patients are not able to receive immediate examination with such equipment.

Please replace paragraph 24 with the following amended paragraph:

The functionality provided by the diagnostic equipment may vary. For example, the diagnostic equipment may be afforded one or more of the following capabilities:

a.   Angle independent volume flow measurement as described in USP 6,535,836;

b.   High spatial and temporal resolution as described in [[SSP]] USP 6,537,217;

c.   Real-time 3D (4D) capabilities as described in USP 6,450,962;

d.   Adjusting operation parameters as described in [[SSP]] USP 6,542,626 and USP 6,478,742;

e.   Transesophageal probe-based ultrasound, as described in USP 6,494,843 and USP 6,478,743;

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    f.   Harmonic and sub-harmonic coded excitation as described in USP 6,491,631, USP 6,487,433, and USP 6,478,741;

    g.   B-mode and Doppler Flow imaging as described in USP 6,450,959; and

    h.   ECG gated image compounding as described in USP 6,447,450.

Please replace paragraph 33 with the following amended paragraph:

Once an examination is obtained, select patient data is conveyed over the corresponding link (210, 212, 224 and/or 226) until reaching the decision/routing network 214. In the embodiment of Figure 4, the decision/routing network 214 accesses a database 216, obtain past patient data sets for previously examined patients. In the embodiment of Figure 4, the decision/routing network 214 may include a host processor or controller 215 that analyzes the current patient information received over links 210 generates a solution or diagnosis and returns the solution or diagnosis to the appropriate healthcare provider at the originating one of hospitals 202 and 204, private practices 206 or mobile services 208. Optionally, the access to knowledge in the database 216 may be provided or controlled by the diagnostic equipment. Further, the database 216 may be embedded or provided on-board the diagnostic equipment. Optionally, the database 216 may store past patient data sets organized and/or catalogued based on pathology type, severeness of a pathology, key patient characteristics that indicate a particular ~~pathology~~ pathology, basic patient characteristics (e.g., age, sex, weight, disease type, etc.), and types of anatomic samples that may be obtained for a given type of diagnostic equipment or that are indications of a particular pathology.

Please replace paragraph 39 with the following amended paragraph:

Diagnostic imaging in primary HC affords the HC provider with additional information early in the patient examination process. The HC provider is afforded more information unique to the patient's circumstances. A parametric structure or scheme is used that is easy to analyze and for which automated instructions may be provided. Patient specific information is automatically captured by the diagnostic equipment and in one embodiment the HC provider may be walked through a "cookbook" type process to arrive at a solution. For

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example, the AV-plane of a heart image may be used in numerous studies of the heart. Once the AV-plane is detected, it can be used to monitor the heart cycle, among other ~~thing~~ things, measurement of the heart wall thickness allows automatic diagnosis of hypertrophy.

Please replace paragraph 44 with the following amended paragraph:

Optionally, the diagnostic equipment may perform classification and/or identification based on the physiologic measurements. The classification may be, for example, to optimize frequency, etc. for arterial blood flow ~~(e.g. optimize frequency, etc. for arterial blood flow)~~. The measurement may identify to the anatomy (e.g. which heart valve) and suggest the type of anatomy to the HC provider. This measurement may be useful to ensure that the HC provider acquires each type of scan desired for a particular study (e.g. when measuring the size and weight of a fetus, a series of measurements are taken from different anatomical structures). The diagnostic equipment may also highlight features to the HC provider that are unique to a current patient when such features are not found in the database (e.g. a new combination of values for a particular set of physiologic parameters).

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